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**PART R**  
**MISCELLANEOUS CONSTRUCTION REQUIREMENTS**

**WAC 296-155-755 Roofing, insulating and waterproofing.**

- (1) Roofers hoisting jack shall be constructed to withstand the contemplated load to be hoisted. The beam from counter balance point to heel of jack shall be at least 3/4 the length of the entire beam.
- (2) Hoisting jack shall be counterweighted with a minimum of three times the contemplated maximum load to be lifted. Counterweight shall be securely fastened to heel of jack to prevent displacement, or the jack shall be fastened by means of lashing, bolting, or other means to prevent displacement.
- (3) A steel collar or U-bolt and shackle on head of the hoisting jack shall be provided for attachment of pulley.
- (4) Hoisting pulleys shall be of steel construction.
- (5) Where materials are hoisted by hand the hoist line shall be not less than five-eighths manila rope, or the equivalent. Where machine hoist is used the hoist line shall be wire rope.
- (6) Hoisting hooks shall be of cast or forged steel heavy enough to prevent straightening under a load.
- (7) Workers shall not stand under load when material or hot asphalt is being hoisted.
- (8) Hot asphalt shall be kept at a safe level in buckets for carrying and hoisting.
- (9) Service buckets of hot asphalt shall not be carried up ladders by workers.
- (10) Service buckets shall be standard safety bucket or flatbottom bucket with bails fastened to an offset ear firmly riveted to side of bucket. There shall be a handle riveted near bottom of bucket for tipping purposes.
- (11) Ladders shall extend at least 3 feet above the platform or roof served and shall be secured at top and bottom to prevent slipping.
- (12) Safeguards shall be erected to prevent loads and lines contacting power lines where not possible to work in clear of power lines.
- (13) Asphalt chunks shall not be thrown into hot tar pot, but shall be placed so as to prevent splashing of hot material.
- (14) There shall be means to smother fires at fired tar pots.
- (15) Mop or spud bar handles over three feet long shall be of wood or other nonconductive material.
- (16) Persons working at kettles or handling hot tar shall, wear gloves and have arms fully protected.
- (17) Open tar heating pots shall be kept outside of buildings.

*Note: Electric type tar heating equipment may be used inside of the working enclosure provided that exhaust fans in connection with tubing, either rigid or flexible, capable of carrying fumes created by the heating process to the outside air are installed and in constant use during heating operations. The equipment should be provided with hinged lid or baffle plate for the purpose of immediate smothering of a pot fire.*

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**WAC 296-155-755 (Cont.)**

- (18) While hot tar is being applied inside an enclosure, exhaust fans to supplement natural ventilation shall be installed to expedite removal of gaseous fumes from the building.
- (19) Flame heated tar pots shall be prohibited on roofs of structures.
- (20) Tar pots shall have an attendant at all times while in operation.  
[Order 74-26, § 296-155-755, filed 5/7/74, effective 6/6/74.]

**WAC 296-155-765 Rock crushing, gravel washing, and hot mix plants.**

- (1) Stationary dragline machines shall have all moving parts which are exposed to contact guarded with standard safeguards.
  - (a) All running lines, straps, etc., shall be regularly inspected and shall be changed when 10% of the wires in a 3 foot length are broken.
  - (b) Spars shall be properly guyed with a minimum of 5 top guys and where spar is over 50 feet in height, 3 buckle guys shall be used.
  - (c) A pass line shall be rigged on the spar to provide safe means of reaching top of spar.
  - (d) The head block shall be equipped with a safety strap attached to shell of the block and onto a guy wire leading away from the working area.
- (2) Truck dump bunkers shall have wheel bumper block installed when dumping material from trucks.
- (3) Substantial walkways and working platforms, equipped with toe boards and handrails shall be installed at all plants. Standard stairways and ladders shall be placed to reach all parts requiring oiling and maintenance.
- (4) Plant structures shall be constructed to carry the required load, without material or structural failure, for the prescribed life of the material used.
- (5) Bunker unloading devices shall be arranged to be operative from outside the walls of bunkers.
- (6) Crusher operators and other employees working where hazardous dust or nuisance dust exists shall use approved respirators and goggles.
- (7) All dusty rock crushing houses or other dusty places of employment, shall be equipped with means for controlling the dust.
- (8) Cone type crushers shall be equipped with approved guards over or around the feed end to prevent rock from flying from crusher while in operation.
- (9) All aggregate elevators, bucket or other type, shall have guards or barricades installed under or around return strand and of sufficient strength to sustain weight of piled up broken elevator equipment.
- (10) All plant controls shall be placed so as to be readily accessible.
- (11) Overhead conveyors shall be constructed so as to restrain the spillage of material. Wherever the hazard of falling materials exists, overhead protection shall be provided over walkways and roadways.

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**WAC 296-155-765 (Cont.)**

- (12) Electrical equipment shall be installed and maintained to comply with the National Electrical Code.
- (13) Exhaust fumes from internal combustion engines shall be discharged away from or above the working station.
- (14) Hot mix plants, steam boilers and pressure vessels shall conform to A.S.M.E. Boiler and Pressure Vessel Codes and applicable rules and regulations of the department.
- (15) All hot pipes exposed to contact shall be covered or otherwise guarded against contact.
- (16) All oil tanks above ground shall be properly bedded and grounded.
- (17) Oil leakage on the ground shall be cleaned up or covered with absorbent material.
- (18) Mixer operators shall use approved respirator and goggles except when operating from a remote location.
- (19) Dust and fume collection systems shall be provided on all installations. Dust and fumes shall be discharged back into plant or carried to a suitable distance from the work area and precipitated.

[Statutory Authority: RCW 49.17.040 and 49.17.050. 86-03-074 (Order 86-14), § 296-155-765, filed 1/21/86; Order 74-26, § 296-155-765, filed 5/7/74, effective 6/6/74.]

**WAC 296-155-770 Moving of structures.**

- (1) When structures are being raised, lowered, temporarily held in position or moved laterally, care shall be exercised to prevent the possibility of mishap.
- (2) Weights to be moved shall be carefully computed and equipment furnished to provide a safety factor of five.
- (3) Where excavations exist they shall be shored in compliance with Part N of this chapter.
- (4) Cribbing and blocking shall be set on a level and firm foundation.
- (5) Dollies and rollers shall be securely blocked except when structure is being moved by power equipment.
- (6) Jacks shall comply with WAC 296-155-375 of this chapter.
- (7) Provisions shall be made to maintain a minimum clearance of 10 feet from all electrical conductors with the following exceptions:
  - (a) When a representative of the owner of the electrical conductors is present and directs the handling of all said conductors.
  - (b) Where there shall be existing and/or erected mechanical barriers to prevent contact of structure or workers with said electrical conductors. Barriers shall be installed by or under the direction of the owners of the conductors.
  - (c) Where said electrical conductors have been de-energized and grounded by the owners of the conductors.

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**WAC 296-155-770 (Cont.)**

- (d) By relocation of said electrical conductors by the owners of the conductors. The 10 foot requirement shall not be reduced by movement due to strains being imposed upon the conductors or the structures supporting the conductors or upon any fixtures or attachments thereon.
  - (8) When a structure is being lifted, shoring shall be provided at all times and be kept up to the object until the desired height is reached, and then it shall be blocked or cribbed immediately.
  - (9) Timbers must be in sound condition and of a size sufficient to maintain not more than one inch deflection for each 200 inches of unsupported span.
  - (10) The cross member used on the front dolly, or the fifth wheel on the truck, must be of construction and size to preclude any deflection. All floor joists of the building being moved must be firmly supported on either the running members or on the cross members, which in turn ride on or are firmly attached to the running members.
  - (11) When timbers are used as the cross member, a steel saddle or cradle shall be used which will distribute the load evenly over the cross members, which in turn ride on or are firmly attached to the running members.
  - (12) When timbers are used as the cross member, a steel saddle or cradle shall be used which will distribute the load evenly over the cross sectional area of said timber where the timber is supported over the dolly or fifth wheel. This saddle or cradle shall be equipped so as to be interchangeable on any standard fifth wheel when such operation is used. Cross members of any other material used on fifth wheel loading shall also be so equipped.
  - (13) When running members are secured to the lower side of the cross member supported by the fifth wheel or front dolly, the primary support shall be 3/4 inch steel bolts placed one on either side of each member and spaced from such members by 1/2 inch steel plate shaped to act as a template for placement on the top of the cross member and beneath the running member. "3/4 by 3" nuts shall be used to tighten the above described clamp in a secure fashion. A secondary binding of chain or cable with chain binder or jacks shall be used to securely fasten the running members to cross members.
- Note: Chains or cables securely tightened can be used. A secondary chain or safety chain should also be used in the event that the main chain should snap.*
- (14) Safety chains shall be used between the running members and the towing truck to supplant the tow bar, and will be secured so as to preclude any possibility of the running timbers being pulled off the cross members on the truck or from the dollies.
  - (15) For the purpose of computing weights to determine the axle and tire loadings, the cubic volume of the building (length, width and height), including walls, floors and ceiling joists, shall be used, allowing five pounds per cubic foot. This method of computing weight shall be used to determine if larger equipment need be employed on any given move.
  - (16) When fastening structures to tractor, and runners are clamped to headers, steel chains or the equivalent shall be used. If steel chains are used, said chains shall be tightened by railroad jacks or the equivalent.
  - (17) All motor vehicles shall conform with motor vehicle laws of the state of Washington.
  - (18) A fifth wheel type suspension with two nonsteering dollies shall be acceptable for moving buildings which do not exceed 46 feet in length. Permission to move larger structures with this type of suspension shall be obtained from the department.

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**WAC 296-155-770 (Cont.)**

- (19) Pushing from the rear shall be prohibited unless a system of signals is used to control the driver.
  - (20) Blocks capable of holding the unit being moved shall be carried, and in case of winching operations, shall be kept close to the downhill side of the wheel of each dolly to prevent a runaway should the cable slip.
- [Order 74-26, § 296-155-770, filed 5/7/74, effective 6/6/74.]